



Metal Oxide Varistors

RL1812A Series

Metal Oxide Varistors - RL1812A Series

Features

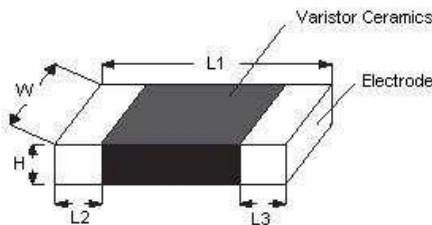
1. Excellent ESD clamping & Small Insertion Loss
2. High transient current capability, Fastest response time
3. Capacitance is designed to ultra-low value, which can be efficiently suitable to high speed data line.
4. EU-RoHS Compliance

Product Name

R	L	1	8	1	2	A	2	7	0	X
↓		↓			↓	↓		↓	↓	
Brand Name		EIA			Type	Varistor Voltage		Remarks		
		1812			A:					

Package Dimensions

Unit:mm



EIA	L1(mm)	W(mm)	H(mm)	L2&L3(mm)
1812	4.50±0.40	3.20±0.30	1.50	0.60±0.30

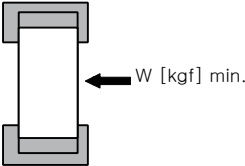
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Electrical Characteristics

Part Number	Working Voltage		Breakdown Voltage	Peak Current	Clamping Voltage	
	AC	DC	@ 1mA DC	8/20uS	8/20uS	
	VRMS	VDC	VB	I _p (MAX)	VC	A
RL1812A270K	17	22	24~30	800A	42	1~10
RL1812A300K	19	24	27~33	800A	47	1~10
RL1812A330K	20	26	29~36	800A	54	1~10
RL1812A370K	21	27	33~40.5	800A	60	1~10
RL1812A390K	24	30	35~42	800A	65	1~10
RL1812A470K	28	36	42~52.5	800A	77	1~10
RL1812A530K	30	42	47~58.5	800A	85	1~10
RL1812A560K	35	45	51~62	800A	90	1~10
RL1812A600K	36	47	53~66	800A	98	1~10
RL1812A680K	40	56	61~75	800A	110	1~10
RL1812A760K	45	60	68~84	800A	120	1~10
RL1812A820K	50	65	74~92	800A	135	1~10
RL1812A900K	52	68	80~100	800A	150	1~10
RL1812A101K	60	85	90~110	800A	165	2.5~10
RL1812A121K	75	100	108~132	800A	200	2.5~10
RL1812A151K	95	125	135~165	800A	250	2.5~10
RL1812A181K	115	150	162~198	800A	300	5~10
RL1812A201K	130	170	184~225	800A	340	5~10
RL1812A221K	140	180	198~242	800A	360	5~10
RL1812A241K	150	200	216~264	800A	395	5~10
RL1812A271K	175	225	243~297	800A	455	5~10

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Electrical Rating

No	Item	Test Condition / Description	Requirement
1	Operation Range	1. -40°C ~ 85°C	-
2	Leakage current	Satisfaction to the specification, under 1uA	Applied voltage : specified working voltage
3	Capacitance	Satisfaction to the specification, under 1pF	Frquency & OSC level : 1MHz, 1.0Vrms
4	Solderability	More than 90% of the terminal electrode shall be covered with new solder.	1. Type of solder : H63A 2. Soldering Temp & Time : 230+/-5°C, 5+/-1 sec
5	Reflow soldering	1. No Serious mechanical damage 2. More than 50% of the terminal electrode shall be covered with new solder 3. Leakage Current :≤ 10uA	1. Type of solder : H63A 2. Temp & Time : max 260+/-5°C, min 10sec * Refer to the soldering profile of page 6
6	Humidity Load Test	1. No Serious mechanical damage 2. Leakage Current :≤ 10uA	Test Temp. & Relative Humidity & Time : 85+/- 5°C, 85 +/- 5% RH, Vw Applied, 500 +/- 12hrs
7	Thermal Shock	1. No Serious mechanical damage 2. Leakage Current :≤ 10uA	1. Step 1 : -40 +/- 5°C, Step 2 : 85 +/- 5°C 2. Cycle : 30min ± 3min, each 5 cycles
8	High Temp. Test	1. No Serious mechanical damage 2. Leakage Current :≤ 10uA	Temp. & time : 85+/-5°C , 1000 +/- 24hrs
9	Adhesive strength	1. No Serious mechanical damage under condition of 1005 : min 0.5kgf, 1608 : min 1.0kgf	
10	ESD	1. No mechanical damage after test 2. Leakage Current :≤ 10uA * ESD gun (IEC61000-4-2 standard) * C=150pF R=330Ω	1. Contact discharge * Voltage :+/-8kV(Level 4) * Number : 10 times in 10sec 2. Air discharge * Voltage :+/-15kV(Level 4) * Number : 10 times in 10sec

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